

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A game apparatus in which a virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying means as a game image, comprising:

an input-information obtaining ~~means~~programmed logic circuitry for obtaining input information input through an ~~operating means~~ a controller by a player at intervals of ~~the~~ a predetermined number of frames in order to move said player character in said game space;

a location updating ~~means~~programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information;

a virtual-camera-location updating ~~means~~programmed logic circuitry for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has continued to moved; and

a game-image generating ~~means~~programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

2. (currently amended) A game apparatus according to claim 1, further comprising

a virtual-camera setting ~~means~~programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein

said reference location is a location of said point of regard,

said virtual-camera-location updating ~~means~~programmed logic circuitry updates in order

the location of said virtual camera by updating in order the location of said point of regard in such a manner that a distance from said target location to the location of said point of regard is shortened at a predetermined ratio irrespective of whether or not said player character has continued to moved.

3. (currently amended) A game apparatus according to claim 1, further comprising
a virtual-camera setting ~~means~~programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein
said reference location is a location of said virtual camera,
said target location is an initial location of said virtual camera that moves in conjunction with said player character,
said virtual-camera-location updating ~~means~~programmed logic circuitry updates in order the location of said virtual camera in such a manner that a distance from said target location to the location of said virtual camera is shortened at a predetermined ratio irrespective of whether or not said player character has continued to moved.

4. (currently amended) A game apparatus according to claim 1, further comprising
a distance determining ~~means~~programmed logic circuitry for setting a maximum distance that uses said target location as a reference, and determining whether or not the distance from the target location to said reference location is rendered longer than said maximum distance; and
a forcedly updating ~~means~~programmed logic circuitry for forcedly updating said reference location to a location within the maximum distance that uses said target location as a reference when determined by said distance determining ~~means~~programmed logic circuitry that the distance is rendered longer than said maximum distance.

5. (currently amended) A game apparatus according to claim 4, wherein

said camera-location updating ~~means~~programmed logic circuitry includes a reference-location calculating ~~means~~programmed logic circuitry for calculating an updated reference location, and

said distance determining ~~means~~programmed logic circuitry determines whether or not said updated reference location calculated by said reference-location calculating ~~means~~programmed logic circuitry is rendered longer than the maximum distance from said target location.

6. (currently amended) A storing medium that stores a control program of a virtual camera executed by a computer of a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying ~~means~~ as a game image, the control program of said virtual camera allows said computer to be functioned as ~~following means of~~ to provide:

an input-information obtaining ~~means~~programmed logic circuitry for obtaining input information input through an ~~operating means~~ a controller by a player at intervals of ~~the a~~ predetermined number of frames in order to move said player character in said game space;

a location updating ~~means~~programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information;

a virtual-camera-location updating ~~means~~programmed logic circuitry for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has continued to moved; and

a game-image generating ~~means~~programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

7. (currently amended) A method of controlling a virtual camera in a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a displaying means as a game image, comprising following steps of:

(a) obtaining input information input through ~~an operating means~~ a controller by a player at intervals of ~~the~~ a predetermined number of frames in order to move said player character in said game space,

(b) updating the location of said player character and said target location in said game space based on said input information,

(c) updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has continued to moved, and

(d) generating the game image based on the updated location of said player character and location of said virtual camera.

8. (new) A game apparatus in which a virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed as a game image, comprising:

an input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space;

a location updating programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information;

a virtual-camera-location updating programmed logic circuitry for sequentially updating, on a frame by frame basis, a location of said virtual camera in such a manner that a distance

between said target location and a reference location that is determined with respect to the location of said virtual camera is made smaller at a predetermined ratio per frame irrespective of whether or not said player character has continued to move; and

a game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

9. (new) A game apparatus according to claim 8, further comprising

a virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein

said reference location is a location of said point of regard,

said virtual-camera-location updating programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said virtual camera by sequentially updating the location of said point of regard in such a manner that a distance between said target location and the location of said point of regard is made smaller at a predetermined ratio per frame irrespective of whether or not said player character has continued to move.

10. (new) A game apparatus according to claim 8, further comprising

a virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein

said reference location is a location of said virtual camera,

said target location is an initial location of said virtual camera that moves in conjunction with said player character,

said virtual-camera-location updating programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said virtual camera in such a manner that a distance between said target location and the location of said virtual camera is shortened at a

predetermined ratio irrespective of whether or not said player character has continued to move.

11. (new) A game apparatus according to claim 8, further comprising

a distance determining programmed logic circuitry for setting a maximum distance that uses said target location as a reference, and determining whether or not the distance from the target location to said reference location is rendered longer than said maximum distance; and

a forcedly updating programmed logic circuitry for forcedly updating said reference location to a location within the maximum distance that uses said target location as a reference when determined by said distance determining programmed logic circuitry that the distance is rendered longer than said maximum distance.

12. (new) A game apparatus according to claim 11, wherein

said camera-location updating programmed logic circuitry includes a reference-location calculating programmed logic circuitry for calculating an updated reference location, and

said distance determining programmed logic circuitry determines whether or not said updated reference location calculated by said reference-location calculating programmed logic circuitry is rendered longer than the maximum distance from said target location.

13. (new) A storage medium that stores a control program of a virtual camera executed by a computer in which the virtual camera arranged in a three-dimensional game space follows a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed as a game image, the control program of said virtual camera allows execution by said computer to provide:

an input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space;

a location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information;

a virtual-camera-location updating programmed logic circuitry for sequentially updating, on a frame by frame basis, a location of said virtual camera in such a manner that a distance from said target location to a reference location that is determined with respect to the location of said virtual camera is made smaller at a predetermined ratio per frame irrespective of whether or not said player character has continued to move; and

a game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

14. (new) A method of controlling a virtual camera in a three-dimensional game space so as to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed in a display as a game image, the method comprising:

(a) obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space,

(b) updating the location of said player character and said target location in said game space based on said input information,

(c) sequentially updating, on a frame by frame basis, a location of said virtual camera in such a manner that a distance from said target location to a reference location that is determined with respect to the location of said virtual camera is made smaller at a predetermined ratio per frame irrespective of whether or not said player character has continued to move, and

(d) generating the game image based on the updated location of said player character and location of said virtual camera.

15. (new) A game apparatus according to claim 1, wherein a moving speed of the virtual camera is variable and is determined based on said determined distance.

16. (new) A game apparatus according to claim 15, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.

17. (new) A storing medium according to claim 6, wherein a moving speed of the virtual camera is variable and is determined based on said determined distance.

18. (new) A storing medium according to claim 17, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.

19. (new) A method according to claim 7, wherein a moving speed of the virtual camera is variable and is determined based on said determined distance.

20. (new) A method according to claim 19, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.

21. (new) A game apparatus according to claim 8, wherein a moving speed of the virtual camera is variable and is determined on based said determined distance.

22. (new) A game apparatus according to claim 21, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.

23. (new) A storage medium according to claim 13, wherein a moving speed of the virtual camera is variable and is determined based said determined distance.

24. (new) A storage medium according to claim 23, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.

25. (new) A method according to claim 14, wherein a moving speed of the virtual camera is variable and is determined based said determined distance.

26. (new) A method according to claim 25, wherein the moving speed of the virtual camera varies based on said determined distance so that the moving speed is faster when said determined distance is farther and slower when said determined distance is closer.